

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/849,501	BJARNASON ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Emmanuel Bayard	2631	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to communiation filed on 6/23/05.
2. ☒ The allowed claim(s) is/are 1-29.
3. ☒ The drawings filed on 04 May 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ol style="list-style-type: none"> <li>1. <input type="checkbox"/> Notice of References Cited (PTO-892)</li> <li>2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br/>Paper No./Mail Date <u>8/30/04</u></li> <li>4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br/>of Biological Material</li> </ol> | <ol style="list-style-type: none"> <li>5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)</li> <li>6. <input type="checkbox"/> Interview Summary (PTO-413),<br/>Paper No./Mail Date _____</li> <li>7. <input type="checkbox"/> Examiner's Amendment/Comment</li> <li>8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance</li> <li>9. <input type="checkbox"/> Other _____</li> </ol> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### **DETAILED ACTION**

This is in response to new Oath of declaration and amendment filed on 6/23/05 in which claims 1-29 are pending. The applicant's amendments have been fully considered therefore this case is in condition for allowance.

#### ***Allowable Subject Matter***

1. The following is an examiner's statement of reasons for allowance: The cited prior arts fail to anticipate or render obvious the following recited features: adjusting spectral shaping in a transmit modem during at least a portion of said training interval to thereby reduce color in the spectrum of transmit signals, relative to signals transmitted by said transmit modem during a normal data mode, wherein said adjusting step comprises the step of decreasing the number of redundancy bits associated with said a line coder as recited in claim 1. Transmitting a predetermined training sequence from said PCM transmitter modem to said PCM receiver modem during said training mode said training sequence having a less-colored spectrum, relative to said colored transmit signals, over a limited bandwidth, wherein the spectrum of said training sequence is characterized by a reduction in DC suppression relative to said transmit signal as recited in claims 4, 12, 20, 23. A logic circuit element configured to generate a predetermined training sequence having at least a first portion characterized by a substantially white spectrum over a predetermined bandwidth, wherein said predetermined training signal includes a second portion characterized by a colored spectrum over said predetermined bandwidth, relative to the substantially white spectrum of said first portion as recited in claims 5, 24, 28. Transmitting a

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predetermined training sequence from said PCM transmitter modem to said PCM receiver modem during said training mode, said training sequence having a less-colored spectrum, relative to said colored transmit signals, over a limited bandwidth, wherein said transmitting step comprises the steps of transmitting a first portion of said predetermined training sequence having relatively white spectral characteristics within said limited bandwidth and transmitting a second portion of said predetermined training sequence having relatively colored spectral characteristics within said limited bandwidth, said second portion being transmitted after said first portion as recited in claim 10. Receiving a predetermined training sequence during the training mode, the training sequence having a less-colored spectrum, relative to the colored receive signals, over a limited bandwidth, wherein the spectrum of the training sequence is characterized by a reduction in DC suppression relative to the colored receive signals as recited in claim 14. Transmitting a predetermined training sequence from the PCM transmitter modem during the training mode, the training sequence having a less-colored spectrum, relative to the colored transmit signals, over a limited bandwidth, wherein the transmitting step comprises transmitting a first portion of the predetermined training sequence having a relatively white spectral as recited in claim 16. Receiving a predetermined training sequence from the PCM receiver modem during the training mode, the training sequence having a less-colored spectrum, relative to the colored transmit signals, over a limited bandwidth, wherein the receiving step comprises receiving a first portion of the predetermined training sequence having a relatively white spectral characteristics within the limited bandwidth and receiving a second portion of

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the predetermined training sequence having a relatively colored spectral characteristics within the limited bandwidth, the second portion being received after the first portion as recited in claim 18.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emmanuel Bayard whose telephone number is 571 272 3016. The examiner can normally be reached on Monday-Friday (7:Am-4:30PM) Alternate Friday off.

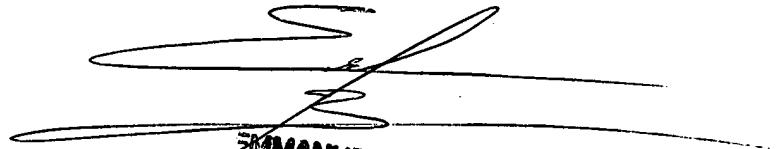
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth Vanderpuye can be reached on 571 272 3078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Emmanuel Bayard  
Primary Examiner  
Art Unit 2631

6/13/05



EMMANUEL BAYARD  
PRIMARY EXAMINER